

**BEFORE THE  
PUBLIC SERVICE COMMISSION OF WISCONSIN**

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Joint Application of Dairyland Power Cooperative,  
Northern States Power Company-Wisconsin, and  
Wisconsin Public Power, Inc. , for Authority to  
Construct and Place in Service 345kV Electric  
Transmission Lines and Electric Substation Facilities  
]for the CapX Hampton-Rochester-LaCrosse  
Project, Located in Buffalo, Trempealeau, and  
LaCrosse Counties, Wisconsin

PSC Docket No. 05-CE-136

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**NO CAPX 2020 and CITIZENS ENERGY TASK FORCE**

**INITIAL BRIEF**

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NoCapX 2020 and Citizens Energy Task Force submit this Initial Brief and request that the Commission make the determination that this project does not meet all of the requirements of Wis. Stat. §196.491 and that the application for the CapX 2020 Hampton-Rochester-LaCrosse transmission project be denied.

The Prehearing Memorandum framed the issues for hearing:

1. 196.491(2) Is a 345 kV transmission line needed to satisfy the reasonable needs of the public for an adequate supply of electric energy?
2. 196.491(3)(t) Does the proposed project provide usage, service or increased regional reliability benefits to wholesale and retail customers in Wisconsin that are reasonable in relation to its cost?
3. Does the proposed project comply with the requirements of Wis. Stat. §§ 196.49(3)(b) and 196.491(3)(d)5?
4. What is a reasonable cost for the proposed project?
5. What route for the proposed project is in the public interest, considering the requirements of Wis. Stat. §§ 1.12(6), 196.025(1m), and 196.491(3)(d)?
6. Should all or any part of the construction be subject to other specific design requirements or other conditions and, if so, how will they be enforced?

7. Has the proceeding complied with the requirements of Wis. Stat. § 1.11 and Wis. Admin. Code § PSC 4.30?

However, issue 4 above has a different focus than the statutory criteria. Issue 4 asks “What is a reasonable cost for the proposed project” rather than the statutory question “is the cost reasonable in relation to benefits.” For the purposes of this brief, we will utilize the statutory criteria and focus on costs and benefits of the project, grouping similar issues together.

## **I. OVERVIEW OF CRITERIA FOR TRANSMISSION NEED AND SITING**

The primary statutory criteria at issue in this proceeding about which the Commission must make determinations are found in Wis. Stat. § 196.491(3)(d):

2. The proposed facility satisfies the reasonable needs of the public for an adequate supply of electric energy.

3. The design and location or route is in the public interest considering alternative sources of supply, alternative locations or routes, individual hardships, engineering, economic, safety, reliability and environmental factors.

3r. For a high-voltage transmission line that is proposed to increase the transmission import capability into this state, existing rights-of-way are used to the extent practicable and the routing and design of the high-voltage transmission line minimizes environmental impacts in a manner that is consistent with achieving reasonable electric rates.

3t. For a high-voltage transmission line that is designed for operation at a nominal voltage of 345 kilovolts or more, the high-voltage transmission line provides usage, service or increased regional reliability benefits to the wholesale and retail customers or members in this state and the benefits of the high-voltage transmission line are reasonable in relation to the cost of the high-voltage transmission line.

4. The proposed facility will not have undue adverse impact on other environmental values such as, but not limited to, ecological balance, public health and welfare, historic sites, geological formations, the aesthetics of land and water and recreational use. In its consideration of the impact on other environmental values, the commission may not determine that the proposed facility will have an undue adverse impact on these values because of the impact of air pollution if the proposed facility will meet the requirements of ch. [285](#).

5. The proposed facility complies with the criteria under s. [196.49 \(3\) \(b\)](#) if the application is by a public utility as defined in s. [196.01](#).

6. The proposed facility will not unreasonably interfere with the orderly land use and development plans for the area involved.

7. The proposed facility will not have a material adverse impact on competition in the relevant wholesale electric service market.

Wis. Stat. § 196.491 (selected).

As above, the Commission may refuse to certify a project are found in Wis. Stat. § 196.49(3)(b) if it appears that the completion of the project will do any of the following:

1. Substantially impair the efficiency of the service of the public utility.
2. Provide facilities unreasonably in excess of the probable future requirements.
3. When placed in operation, add to the cost of service without proportionately increasing the value or available quantity of service (value or available quantity of service the facilities provide must be proportionate to their cost)

Wis. Stat. § 196.49(3)(b) ; see Wis. Stat. § 196.491(3)(d)5

The Commission must also evaluate conservation, efficiency and renewable options, individually and in combination and must reject all or part of the project if it does not utilize the statutory energy heirarchy:

- Energy conservation and efficiency
- Noncombustible renewable energy resources
- Combustible renewable energy resources
- Nonrenewable combustible energy resources
  - Natural Gas
  - Oil or coal with a sulfur content of less than one percent
  - All other carbon-based fuels

Wis. Stat. § 1.12(4); see also Wis. Stat. §196.025(1)(b)(1).

The criteria upon which the Commission must base its decision are broad and inclusive.

Based upon the record in this proceeding, the Commission does not have a sufficient record to support issuance of a CPCN for this project.

## **II. APPLICANTS “NEED” CLAIMS ARE OVERSTATED**

Applicant’s “need” claims are overstated, and are based upon studies dating back to 2004 and 1999, where a large growth in demand was presumed, and in an economic growth frenzy which has since 2007 been reduced to a “new normal” of decreased industry demand

projections. The Applicant's Hampton-Rochester-LaCrosse project includes an implied connection to Madison which is the link that completes the circuit between the Twin Cities and Madison contemplated in the fundamental studies upon which this project is based.

CapX 2020 is a transmission expansion effort consisting of a web of interconnected transmission lines developed over more than a decade, beginning with the WIRES report. Kline Direct, p. 6, l. 11-16. Starting in the late 1990s, engineers from many companies joined together in WIRES and WRAO to identify transmission system upgrades to increase transfer capacity into Wisconsin.<sup>1</sup>

The 1999 Wisconsin Interface Reliability Enhancement, Phase II, Study (WIRES Phase II Report") identified a transmission line from the Prairie Island Substation, owned by NSPM southeast of the Twin Cities, to the Columbia Substation, just north of the Madison area and then owned by one of ATC's owners, as a project that would address certain stability issues in the Minnesota-Wisconsin transmission interface.

Id, p. 6, l. 11-16. The CapX 2020 transmission build-out is an outgrowth of WIRES and is focused on increasing transfer capacity from the west to the east.

CapX 2020's Vision Plan was developed in 2004 and 2005 and is predicated on a 2.49% annual demand increase. CapX Technical Update, p. 1, p. 6, NoCapX/CETF Item 5, ERF 160027; Kline, Tr., Vol. 2, p. 154-155. That growth projection is more than double the Applicant's growth scenario. Urban, Direct Testimony, p. 3, l. 15. Based upon that 2.49% demand growth projection, a large network of transmission expansion was developed, deemed the CapX 2020 Vision Plan. The Vision Plan consisted of 1620 miles and 15 segments of

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<sup>1</sup> WIRES, p. 1, NoCapX/CETF Item 13; see also Kline, Direct Testimony, p. 1, l. 2-20: From years of joint planning work for a second Twin Cities to Madison transmission path, regional utilities identified a variety of upgrades generally from west to east.

...

NSPW has been actively involved with the regional planning efforts for a LaCrosse – Madison Line since before the formation of ATC. Both NSPW and ATC actively participated in the study work that identified the La Crosse – Madison Line as a next logical segment in the overall high-voltage build-out from west to east.

transmission extending “from the North Dakota coal fields” to Columbia, and estimated in 2005 to cost over \$1.2 billion. *Id.*, p. 3-4, 15.

The Prairie Island-LaCrosse-Columbia transmission line in the WIRES Study, Plan 2e, and CapX Vision Study is, from a “regional perspective,” “substantially similar” to the Hampton- Rochester-LaCrosse and LaCrosse-Madison lines. See WIRES Report, NoCapX /CETF Item 13; p. 2, 8, 10, , CapX 2020 Technical Update, October 2005, NoCapX/CETF Item 5, ERF 160027; *Id.*, p.151, 1.4-8. “In the aggregate, there were common facilities between the WIRES study and the CapX Vision Study.” Kline, Tr. Vol. 2., p.155, 1..24-25. The Applicant’s Hampton-Rochester-LaCrosse and ATC’s Badger-Coulee lines are the 2012 “Prairie Island-LaCrosse-Columbia” transmission line, one vision of many parties, artificially segmented but interdependent, the piece from LaCrosse to Madison necessary for the transfer capability increase into Wisconsin and beyond. The LaCrosse to Madison is presumed necessary for the significantly increased transfer capability:

Lastly, the studies found that the 345 kV project in combination with a line from LaCrosse to the Madison area, would increase power transfer capability.

King Direct Testimony, p. 14, 1. 7-9; see also MISO’s Webb, p. 17, 1. 29-31; ATC’s Holtz Direct Testimony, p. 5; Applicant’s Beuning Direct Testimony, p. 3, 1. 12-15 and Beuning Ex. 2 (PROMOD benefits included 345 kV Eastward expansion in base case); Kline Rebuttal, p. 8-9; PSC’s Neumeyer Direct Testimony p. 2, 1. 8, 1. 11, 1. 18-19; p. 5, 1. 2-4 (transfer capacity studies include 345 kV line to the east, xmsn fitting in with plans for additional xmsn).

(Kline Testimony) (Tech update with chart)

Since the 1999 WIRES Study in 1999, and the 2005 CapX 2020 Vision plan in 2005 predicting a 2.49% per year increase in demand and a need for 4,000-6,000 MW of new generation, things have changed dramatically. Demand has dropped significantly for some time, an economic condition reflected in utility Integrated Resource Plans. For example, Xcel has declared that it will not increase the rating of its Prairie Island Nuclear Generating Plant, for

which it has already applied for and received a Certificate of Need; it will not repower the Black Dog generating plant, and because it is in compliance with RES it will reassess need for future wind power acquisition.. Xcel Energy Resource Plan Update, p.2, NoCapX/CETF Item 4, ERF 160028. Xcel's own projections are that:

We now expect 0.7% annual demand growth and 0.5% annual energy growth over the Resource Plan Horizon, down from 1.1% and 0.9% respectively, included in our initial filing. The magnitude of the reduced forecast is such that it prompts us to reconsider some components of our Five Year Action Plan.

...

Our current expectations are lower than what was included in the initial filing, reducing our projections of customer' future demand for capacity in 2016 by approximately 500 MW from our initial Resource Plan filing.

Id., p. 6, Economic Conditions and Revised Forecast, ERF 160028.

Regarding impact of economic decline and decreased demand on this specific project, MISO's Webb provided testimony in the Minnesota Certificate of Need and now the Wisconsin CPCN, and his "Table 1: Thermal Results Summary" showing "Critical Facility" and "Contingency Events" has changed, showing the impact of changed demand – a shift in load – the 'Critical Facilities' are not the same now as they were in 2008. See Application, Webb Direct Testimony 5/23/08, TSSR p. 448; see also Webb Direct Testimony p.13. The 2008 chart used a 2011 Summer Peak model, and lists the modeled loading levels for contingency events, all but one double contingencies with two elements out. The project uniformly reduces loading levels to under 65%. However, the problems predicted in that modeling filed in 2008 did not materialize. The 2012 chart utilized a 2016 Summer Peak model with different Critical Facilities, showing much higher "line flows" (% Rating) with the project installed. A scenario and results that are notably different from earlier projections filed regarding this project demands further review.

Based on utility reporting, industry projections are for continued oversupply of electricity. The North American Electric Reliability Corporation issues an annual Long-Term Reliability Assessment, based upon reports of utilities and reliability organizations. The 2011 Long-Term Reliability Assessment shows high reserve margins and continued decreased demand. Projected Reserve Margins from the NERC Report (15% reserve margin required):

<b>Year/ Assessment area</b>	<b>Anticipated</b>	<b>Prospective</b>	<b>Adjusted Potential</b>
<b>2011</b>			
<b>MISO</b>	22.1	39.6	39.6
<b>MRO-MAPP</b>	43.5	43.5	43.5
<b>2015</b>			
<b>MISO</b>	19.4	37.3	37.3
<b>MRO-MAPP</b>	28.5	28.5	28.5
<b>2021</b>			
<b>MISO</b>	15.1	32.1	32.1
<b>MRO-MAPP</b>	19.6	19.6	19.6

Source: NERC Long-Term Reliability Assessment, p. 46-67, NoCapX/CETF Item 18.

Applicants also make much of the loss savings, noting that this project provides from 4 to 11MW of loss savings. Application, Table 2.1-14: Losses Performance Comparison, p. 2-50 – 2-51; Supplemental Need Study, p. 49-50. The Supplemental Need Study was filed just two months later, but uses a significantly higher Energy Value in Figure R (comparative to Application Table 2.1-13), up to \$37.15 from \$29.09 in the Application. This results in a much higher “Energy Value” and higher results. This loss savings claimed by Applicants is calculated in reference to the entire Eastern Interconnect. Hahn, Tr. Vol. 2, p. 70-71. The Eastern Interconnect has Total Internal Demand of 609,120 MW, and Net Internal Demand of 572,988 MW; and Capacity Anticipated of 774,502, Prospective of 805,791 and Adjusted Potential Capacity of 806,683. NERC Report p. 46, NoCapX/CETF Item 18. Of that, 18,000 MW is system losses, meaning the equivalent of an additional thirty 600MW coal plants must be operating to compensate for these transmission line losses. SNS p. 50, Figure S. Applicants

estimate a loss savings of 4-11 MW, but 4-11MW in a universe of 18,000MW of system losses and 800,000 MW of capacity is negligible. Further, the “loss savings” touted by Applicants put the loss of the “Proposed 345 kV Project Added” as the base case, declared “0” and so do not take into account the actual losses inherent in transmission that this project would incur, and only addresses comparative losses assuming unknown inputs including current, line specs, and length of line. Application, Table 2.1-14, p. 2-51. There is also no explanation for the assumption of 50% peaking and 50% baseload in the calculation. Table 2.1-13: Computation of Equivalent Capitalized Value for Losses. The claimed loss savings of 4-11 MW do not provide a basis for selection of this project or any of its alternatives as the loss savings when viewed in the big picture is insignificant.

These facts regarding the project should be taken into consideration by the Commission in evaluating the project.

**A. PROJECT NOT “NEEDED” FOR LOCAL LOAD UNTIL BEYOND 2024**

A large-scoped high-capacity project such as the proposed Hampton-Rochester-LaCrosse transmission line is not necessary to serve the LaCrosse area local needs. The detailed analysis of the PSC’s Sirohi demonstrates that:

Alternative C, the Reconductor Option, is the least-cost alternative for serving Local Area needs for a generally acceptable planning period of 20 years based on the MTEP 11 load growth rate of 0.78 percent.

Sirohi Surrebuttal, p. 7, ERF /. This alternative is sufficient to meet load of 750MW until 2076, well beyond the 20 year planning horizon. Sirohi Surrebuttal, p. 5, Table 2. This Option was found to be the least-cost alternative, despite use of 2012 models when other parties were utilizing more updated models with lower forecasts. See Sirohi, Tr. Vol. 4, p. 626, l. 10-19; Sirohi Direct Testimony, p. 3, l. 4.



CUB’s Hahn and PSC’s Sirohi took issue with the Applicants updated projections for LaCrosse. In light of the changes in projections over the life of this project, the Commission should take a closer look at local load need claims.

In the 2008 Minnesota Certificate of Need filing, the LaCrosse load chart bottom lines were different, less than, those in the 2011 SNS filing:

Filing	2002	2005	2008	2010	2015	2020
2008 CoN	402.23	436.53	459.55	480.72	538.03	602.16
2011 SNS	425.12	464.59	435.34	473.04	514.98	547.57

Source: 2008 Application MN CoN Docket, NoCapX/CETF Item 6, ERF 160015; 2011 Supplemental Need Study.

As above, MISO’s Webb provided testimony in the Minnesota Certificate of Need and now the Wisconsin CPCN, and his “Table 1: Thermal Results Summary” showing “Critical Facility” and “Contingency Events” and the ‘Critical Facilities’ are not the same now as they were in 2008. See Application, Webb Direct Testimony 5/23/08, TSSR p. 448; see also Webb Direct Testimony p.13. In the earlier WEBB chart, the project uniformly reduces loading levels to under 65%. However, the problems predicted in that modeling filed in 2008 did not materialize. The 2012 chart utilized a 2016 Summer Peak model with different Critical Facilities, showing much higher resulting “line flows” (% Rating) with the project installed.

In addition, Applicants’ local load need claim ignores the multiple 161kv connections from Minnesota over the river that serve western Wisconsin, including four documented in USFWS Comments regarding use of the four existing transmission corridors in Alma, Winona, Black River Bottoms and LaCrosse that were proposed as Mississippi River crossing points. USFWS 5/4/09 Letter to Hillstrom, Attachment 1, p. 4 of 8. When asked whether he took into

consideration the lower voltage lines in the southeast Minnesota region that may have an impact on LaCrosse:

My analysis was limited to the local area needs which is La Crosse ara. So they were not looking – I was not looking at what happens in Minnesota.

Sirohi, Tr. Vol. 4, p. 625, l. 12-17.

When asked whether, regarding local needs, if the project also provides more than what local needs could require, Sirohi testified:

Yeah. It serves local area needs for a very long time.

Sirohi, Tr. Vol. 4, p. 615-616.

Hahn agreed, finding 650 MW “need” under his load forecast for 2050. Hahn, Tr. Vol. 2, l. 8-12.

This project is not necessary to serve real or imagined local needs in the LaCrosse area.

## **B. PROJECT NOT “NEEDED” FOR REGIONAL RELIABILITY**

Regional reliability is a moving target and is often misconstrued and misrepresented. For example, Applicants frame congestion as a reliability problem, but it is not, it is a market issue. Applicants also frame desire for increased transfer capability as a reliability problem, but again, it is not, it is a market issue. The driver for this project is Applicants desire to participate in the market, to move western generation eastward toward a higher priced market, to sell its surplus generation of whatever source to eastern MISO sinks for private profit.

### **i. Applicants claim project is “needed” because it provides increased transfer capability**

In their testimony and exhibits, the Applicants regard the Hampton-Rochester-LaCrosse line as part of the larger Twin Cities to Madison line. Applicant’s Beuning regard the line as “coupled with added future upgrades made feasible by this preferred design” and:

... a key step as part of a regional plan to attain substantial economic dispatch benefits. With the 345 kV Project development in-place, future high voltage upgrades from La Crosse to the east will reduce regional energy production costs.

Buening Direct Testimony, p. 3, l. 2-4; l. 13-15.

The Hampton-Rochester-LaCrosse transmission project does not, on its own, provide significant increase in transfer capacity. This project requires additional line from LaCrosse to Madison to provide transfer capability. Without it, project is a radial tie to LaCrosse subject to voltage instability:

The west to east transfer capability of the existing transmission facilities through the Minnesota-Wisconsin Export (MWEX) interface is presently limited due to voltage stability and transient voltage recovery limitations.

WWTRS p. 1, 9; see also CVS p. 8-9; SNS p. 14.

Transfer capacity increase requires line extending to Madison and 345kV ring. CVS p. 9. “For any case that does not include the LaCrosse – West Middleton 345 kV transmission line..., an overload of the King – Eau Claire or the Eau Claire – Arpin 345 kV line before any other criteria are met, is a stopping point. Id., p. 39; see also p. 51 (a line to the east is needed).

This project alone does not provide significant transfer capability – it brings the electricity to the western edge of Wisconsin, to LaCrosse, but that is all. For significantly increased transfer capability, the extension from LaCrosse to Madison is required. There is no basis for the Commission to permit this line for significantly increasing transfer capacity.

**ii. “Transfer capability” and relief of “congestion” are market issues.**

Applicants claim that the project is needed for regional reliability, that there are congestion problems in the area, that they need to increase transfer capability. But these claims are market issues, and are not indicative of reliability issues.

Claims of congestion show that this Hampton-LaCrosse project, a radial line to LaCrosse, will not address the congestion complained of. For example, the “Congestion-Based ones Modeled in 2014” cover much of Minnesota. SNS Study, King Ex. 7, p. 24. The map shows that southeast Minnesota and all of Wisconsin, with the exception of Milwaukee are congestion free. A line from Minnesota to LaCrosse will only bring the Minnesota congestion to LaCrosse! That is verified by the Applicants in their own studies!<sup>2</sup> Without the addition of a line from LaCrosse to Madison, expect system instability “to ensure reliable operation and enable full dispatch of new generation resources.”<sup>3</sup> The Stability Assessment showed that system stability was at risk and “significant new reactive capability will be necessary as variable and intermittent generation sources increase. This is due in large part to generation being located a significant distance from load centers.” Id. p. 14. This need for a LaCrosse-Madison extension of the 345kV system is also reflected in the Capacity Validation Study, which states that “a line to the east is needed,” and a line to Madison is assumed. CVS p. 8-9, p. 51; King Ex. 7, p. 13.

Beuning, an Xcel market manager, put it succinctly:

... a key step as part of a regional plan to attain substantial economic dispatch benefits. With the 345 kV Project development in-place, future high voltage upgrades from La Crosse to the east will reduce regional energy production costs.

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<sup>2</sup> Supporting Facilities for Corridor Upgrade –

- One outcome of studying a Midwest ISO market sink scenario is that the system requires additional facilities to deliver power east from LaCrosse, Wisconsin to the rest of the Midwest ISO footprint during low load and high wind periods in the Minnesota and Dakota areas. The Corridor Upgrade facility would then achieve its full potential in the Midwest ISO market dispatch.
- The Twin Cities metro sink scenario showed that in order to sink as much as 2000 MW of generation from the west to the Twin Cities, many metro area electric generation units must be shut down to allow the imported generation to remain online. To enable this new generation to be sunk in the Twin Cities metro and maintain reliable operation requires a significant list of metro area transmission upgrades.

Tipping Point in Transmission System – Following the addition of the Corridor upgrade (and associated underlying system upgrades required with a Twin Cities Metro sink scenario) any future transmission or generation capacity additions will require a facility from LaCrosse to Madison, Wisconsin area. In other words, without a line to the east of LaCrosse the system will reach a tipping point, where additional transmission and generation capacity additions cannot be accommodated due to the need to keep Twin Cities generation online for steady state and dynamic system stability. Id., p. 9-10.

<sup>3</sup> Id. at 13.

Buening Direct Tstimony, p. 3, l. 2-4; l. 13-15.

The market benefits of a transmission expansion build-out are clear:

This analysis was designed to focus on a subset of operational benefits available from Day-2 RTO operation which are quantifiable using commercially available models that simulate unit commitment and dispatch of electric generation. The focus was on production cost savings associated with centralized operations, and hence, primarily reflects estimation of the displacement of relatively more expensive generation with relatively less expensive generation made possible by centralized operations. In most cases the simulation indicated the potential displacement of gas-fired generation with coal-fired generation. This inter-fuel optimization is particularly important in the Midwest because the natural gas generation fleet includes a disproportionate level of expensive gas-fired peaking units as opposed to intermediate or less costly gas-fired combined cycle or gas-steam facilities. Further, Midwest ISO coal plants have very low operating costs even compared to other US coal-fired powerplants. Thus, any displacement of natural gas generation with coal generation can greatly decrease operating costs. Put another way, the use of a gas plant when somewhere else inside or outside of the Midwest ISO a coal plant with spare capacity and the needed transmission is available to displace the gas plant would increase costs significantly. As such, an important goal of grid optimization is to minimize these occurrences.

ICF – Independent Assessment of MISO Operations Benefits, p. 9, NoCapX/CETF Item 15, ERF 160024.

The MISO economic benefits study clearly describes the “benefits” of transmission and market dispatch:

The overall outcome of this analysis demonstrates that potential RTO benefits are large and are measured in hundreds of millions of dollars per year. While on a percentage basis the potential improvement appears modest, the magnitude of the production costs involved is so large that on a dollar basis, the efficiency improvements are substantial.

RTO operational benefits are largely associated with the improved ability to displace gas generation with coal generation, more efficient use of coal generation, and better use of import potential.

Id., p. 14, ERF 160024.

The studies provided by Applicants show that they have no intention of shutting down coal, and instead will keep it running, and reaping the benefits as demonstrated by ICF’s study CVS p. 48-50, King Ex. 8; see also Final Report – SW Twin Cities – Granite Falls & Minnesota

RES Update, King, Second Supplemental Direct Ex. 7, p. 13: see also Twin Cities sink scenario in both, presuming continued use of coal generation. CVS p. 49 and Corridor Study and MN RES Update Study p. 13.

Promoting the use of coal generation is not consistent with the Wisconsin hierarchy of generation. This project should not be granted a CPCN.

**C. PROJECT EXCESSIVE FOR EVEN OVERSTATED “NEED” CLAIMS**

A project should not be improved if it would provide facilities unreasonably in excess of the probable future requirements. Wis. Stat. § 196.49(3)(b)

This project, if single circuited, has a capacity of 2050 MVA Capacity, and 4,100 MVA capacity if double circuited. Stevenson 18 & 19, Underground estimates ampacity rating; MTEP App A & B.

Claims by applicants and supporting intervenors that “it’s for wind” are false. For example, the WWTR focused in increasing transfer capacity between Minnesota and Wisconsin models zero wind generation in South Dakota, 583 MW in North Dakota and **2,823 MW in Wisconsin**, just the opposite of the scenario posited by WPPI’s Noeldner, who presumes Wisconsin’s wind resource is inferior to westward states such as North Dakota, and that RPS cannot be met with Wisconsin wind. WWTR p. 13; Noeldner Direct Testimony, p. 8 – 10 and Noeldner Exhibit 2.

This project is a very high capacity radial transmission line to LaCrosse for which there is no need. It is also not for wind, as it must serve all transmission customers, it would limit Wisconsin development if wind energy is procured by Wisconsin utilities for Wisconsin RPS from states west of Wisconsin, and because it ends in LaCrosse, far from any logical sink, it will not enable transfer of wind energy into Wisconsin.

**D. COST FOR UNNECESSARY PROJECT IS NOT REASONABLE**

The cost of the project must be reasonable in relation to the benefits it provides. Wis. Stat. §196.491(3)(t); 196.49(3)(b)(2). Does the proposed project provide usage, service or increased regional reliability benefits to wholesale and retail customers in Wisconsin that are reasonable in relation to its cost? It's impossible to tell with this record – the cost of the project is a moving target, and the cost to Wisconsin ratepayers is not clear.

In Minnesota, costs were also a moving target, and assumptions made in that Certificate of Need proceeding are no longer applicable, particularly the assumption of “Baseline Reliability Project” for this project. At that time, based on 2008 testimony, costs were estimated to be lower:

<b>PROJECT</b>	<b>APPROXIMATE COST, In Millions, as Proposed</b>	<b>APPROXIMATE COST, In Millions, Upsized Alternative</b>
La Crosse Project <sup>584</sup>	\$364 - \$374 (Alma Crossing) \$355 - \$363 (Southern Crossing)	\$389 - \$415 (Alma Crossing) \$407 - \$432 (Southern Crossing)

Attachment F, Recommendation of ALJ, Feb. 27, 2009, MPUC Docket 06-1115, NoCapX/CETF Item 3, ERF 160014.

This ALJ Recommendation, adopted by the Commission, noted that cost was a moving target, similar to the difficulties ascertaining cost in this Wisconsin docket.<sup>4</sup>

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<sup>4</sup> Recommendation of ALJ, February 27, 2009, NoCapX/CETF Item 3, ERF 160014:  
It is difficult to estimate the cost of the CapX project to Minnesota customers. Once the projects are on line, MISO allocates the costs for transmission based on a formula which takes into account the purpose of the line and the portions of the MISO footprint that will benefit from the improved reliability that the new lines add to the system. Whether MISO classifies the proposed projects as a Baseline Reliability project or a Generator Interconnection Network Upgrade will affect the cost allocation (citation omitted). The Applicants expect that the Fargo Project and Brookings Project and 80 percent of the La Crosse Project will be subject to the MISO formula. The Applicants estimated the projects' revenue requirements and allocated the costs to the MISO pricing zones. Then, it estimated the charges to the CapX owners, based on projected ownership shares. Its analysis was premised on MISO classifying each of the three CapX projects as Baseline Reliability projects (citation omitted).

In this docket, cost was initially claimed to range from \$147-224 million for the line and an additional \$27 million for the substations, totaling \$174-251 million for the Wisconsin portion of the project. Application, p. 2-61 – 2-62, ERF 150042. The FEIS estimates costs for the Wisconsin portion of the project range from \$195-234 million plus substation costs at \$27 million, totaling \$222-261 million. P. 47, §4.5, FEIS, ERF /. CUB’s Hahn notes that the cost is \$507 million. Hahn Direct, p. 7, Figure 4.

Cost allocation is as difficult to nail down. CUB’s Hahn testified that the entire project is a “Baseline Reliability Project” as reflected in MTEP 08. MTEP08, NoCapX/CETF Item 8, Section 5, p. 184. Applicant’s Lehman clarified that the entire Hampton-Rochester-LaCrosse is not a Baseline Reliability Project. Instead:

The Hampton-North Rochester 345 kV segment as well as the two 161 kV lines from the North Rochester substation to the Rochester 161kV system have been classified as “Participant Funded or “Other” as listed in Mr. Hahn’s Figure 13. The balance of the 345 kV Project is classified by MISO as BRP.

Lehman, Rebuttal, p. 4, l. 12-16.

CUB’s Hahn did not properly allocate costs to Wisconsin ratepayers because the project is not fully a BRP. Lehman, Id., p. 4-8. While critical of Hahn’s evaluation, he does not provide the correct numbers – no where in the record is there a clear disclosure of costs to Wisconsin ratepayers for this CapX 2020 Hampton-Rochester-LaCrosse project, nor for the balance of the CapX 2020 transmission project costs that will be assessed to Wisconsin ratepayers.

### **III. ROUTING CONSIDERATIONS**

There are a number of routing considerations that must be addressed by the Commission, including a determination of what route for the proposed project is in the public interest, considering the corridor prioritization and non-proliferation requirements of Wis. Stat. §§



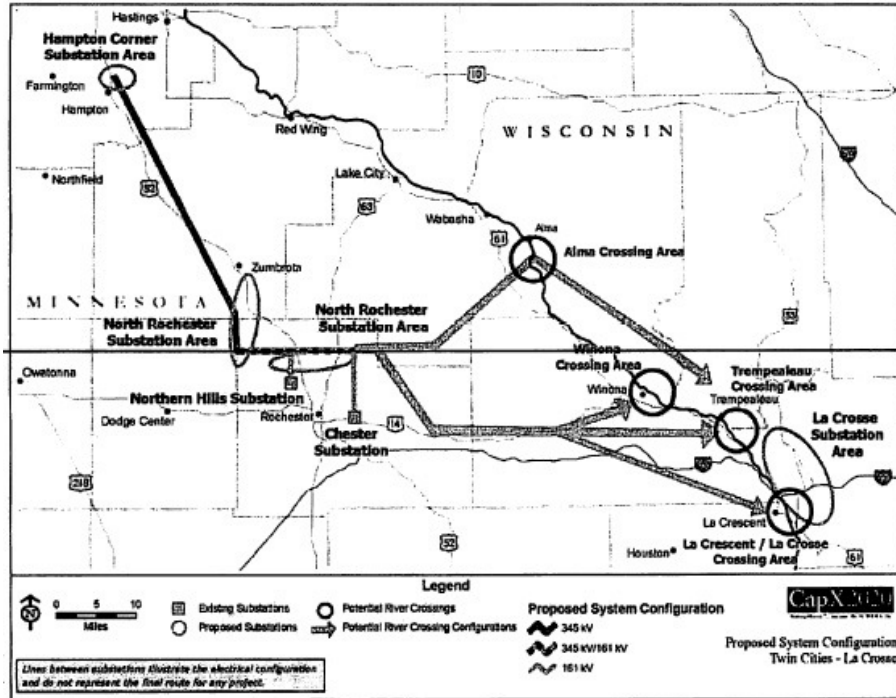
1.12(6), supported by Wis. Stat. § 196.025(1m), and 196.491(3)(d); whether all or any part of the construction be subject to other specific design requirements or other conditions and, if so, how will they be enforced; and whether the proceeding complied with the requirements of Wis. Stat. § 1.11 and Wis. Admin. Code § PSC 4.30. Based upon the record in this proceeding, a route selection in the public interest and in compliance with Wisconsin Statutes and Code is not possible at this time.

**A. AT LEAST TWO ROUTE ALTERNATIVES ARE REQUIRED**

The application as presented, and the environmental review for this project, includes ONLY one route crossing of the Mississippi River. It is not sufficient under WEPA for the Commission to have only one route crossing of the Mississippi River under consideration. The Minnesota Certificate of Need proceeding for this project considered four route crossings<sup>5</sup>, one near LaCrosse, one near Trempealeau, another near Winona, and another near Alma. These four route crossings were evaluated by USFWS, which noted in a comparison table, that each had an existing transmission line crossing the river at that location. USFWS 5/4/09 Letter to Hillstrom, NoCapX/CETF Item 21, ERF 161182; see also USFWS 2/19/08 Letter to Rasmussen, NoCapX/CETF Item 20, ERF 161181.

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<sup>5</sup> See Item 1, Order Granting Certificates of Need with Conditions, May 22, 2009, MPUC Docket ET-2,E002/CN-06-1115, ERF 160012.



The RUS EIS initially also addressed four Mississippi River crossings and narrowed it to three. See RUS DEIS p. 9-10, and Table ES-1 Comparison of Preliminary River Crossing Alternatives, Exec. Summary, FEIS, ERF 158972. In this Hampton-Rochester-LaCrosse proceeding, however, inexplicably and contrary to the most basic environmental and statutory tenets, only the Alma Mississippi River crossing was considered. / Application, p. /; DEIS p. 36, §4.3.2, ERF 155558; FEIS p. 43-44, §4.3.2, ERF 158960; FEIS, App. F, p. 4, ERF 158972.

Under Wisconsin law, there must be two viable route alternatives. Wis. Stat. § 196.025(2m)(c); see also FEIS p. XVI. Until there is a second viable alternative Mississippi River crossing for consideration, this project is non-compliant and not eligible for a permit.

**B. THE CAPX 2020 PROJECT DOES NOT SUFFICIENTLY UTILIZE EXISTING CORRIDORS**

Siting of electric transmission facilities. In the siting of new electric transmission facilities, including high-voltage transmission lines, as defined in s. [196.491 \(1\) \(f\)](#), it is the policy of this state that, to the greatest extent feasible that is consistent with economic and engineering considerations, reliability of the electric system, and

protection of the environment, the following corridors should be utilized in the following order of priority:

- (a) Existing utility corridors.
- (b) Highway and railroad corridors.
- (c) Recreational trails, to the extent that the facilities may be constructed below ground and that the facilities do not significantly impact environmentally sensitive areas.
- (d) New corridors.

Wis. Stat. §1.12(6); see also Wisconsin Wis. Stat. § 196.025(1m)

### **C. UNDERGROUNDING COST IS REASONABLE**

Undergrounding the 345kV transmission line and the costs of undergrounding are at issue in this proceeding. Undergrounding the line has been suggested for several locations, including the Mississippi River crossing, at multiple crossings of the Hwy 35 Scenic Byway, along certain parts of the Hwy. 88 alternative, and at other locations such as near the Holmen school. Several cost estimates have been introduced into the record, initially one included with the Application, and then two others from other CapX 2020 transmission proceedings, and additionally one estimate from Connecticut. Appendix F, Application, ERF 142791; Stevenson 18 & 19, ERF 160937 and 160938; NoCapX/CETF Item19, Bethel to Norwalk Project Schedule 12C. The undergrounding reports and estimates reflect different specifications, conditions and terrain. The Commission has the authority to order undergrounding and WisDOT also has the authority to require undergrounding as a condition of a DOT permit.

Early in the permitting process for this project, USFWS stated it preferred an underground crossing to aerial crossing of the Mississippi River. USFWS 5/4/09 Letter to Hillstrom, NoCapX/CETF Item 21, ERF 161182. Undergrounding at the river crossing was later deemed “expensive,” without any citation or basis. USFWS 4/29/11 DEIS Comment, Item 22, ERF 161183. However, the Mississippi River crossing is the most expensive segment of the

project. FEIS p. / When the per mile cost of undergrounding is compared to the higher per mile cost of the river crossing segment, the cost of undergrounding is not significantly more expensive.

What are the benefits of undergrounding? Installing a transmission line under the Mississippi River is a mixed proposition. There are benefits in that it is no longer a 1.3 mile crossing one of North America's largest flyways, and an eagle take permit would likely not be required. If it is underground, it is no longer a visual intrusion in this scenic area, and could legitimately cross the Great River Road National Scenic Byway. Fasick, Tr. Vol. 3, p. When compared with the benefits, the cost is reasonable.

The cost per mile of various segments is detailed in the application, and the segment crossing the Mississippi River is under two miles long. With a cost estimate for this segment of \$7 million per mile, is the most expensive segment cost for the entire route. Ex. /, Application, p. /. Undergrounding, at even \$20 million per mile, is only \$13 million per mile more and a total of \$26 million more. The FEIS unreasonably compares the cost of undergrounding with the per mile cost averaged over the entire length of the line.

#### **IV. CONDITIONS IF PROJECT IS APPROVED**

There are several conditions that should be met prior to issuance of a CPCN. First, Wisconsin requires disclosure of ownership in an application, specifically "[t]he names and addresses of owners and investors, and percent of ownership". PSC111.55(5). This information has not been provided by the applicants, only stating the parties "expected" to have an ownership interest, and at some time in the future, "once state, federal and other regulatory decisions are made, final ownership will be determined." Application p. 1-19, ERF 150042; see also Lehman, Tr. Vol. 2, p. 163, l. 7-20; p. 165, l. 9-13. Failure to declare ownership was a concern in

Minnesota, where the PUC ordered in the 2009 Certificate of Need, that ownership interests be disclosed. Order Granting Certificates of Need with Conditions, May 22, 2009, MPUC Docket ET-2, E002/CN-06-1115, NoCapX/CETF Item 1, ERF 160012; see also Lehman, Tr. Vol. 2, p. 164, l. 21 – p. 165, l. 4. In this case, the Applicants are not in compliance with PSC 111.55(6):

**Table 2:  
Potential Ownership Percentages**

Participating Utility	Applicable Project Development Percentage	Ownership Interest in Wisconsin
Xcel Energy	64 percent	Yes
SMMPA	13 percent	No
Dairyland Power Cooperative	11 percent	Yes
RPU	9 percent	No
WPPI Energy	3 percent	Yes
TOTALS:	100 percent	

Table 2, Potential Ownership Percentages, Application, p. 1-20, ERF 150042.

No CPCN should be issued until the Applicants have declared and disclosed actual ownership interests in the project and are in compliance with PSC 111.55(6).

Secondly, the requirements of the Wisconsin Department of Transportation have not been met. Prior to issuing permits, a Memorandum of Understanding and a Constructability Report are required, and as of the hearing, a Memorandum of Understanding had not been executed, and neither was provided for the record in this proceeding. Stevenson, Tr. Vol. 2, p. 211, l. 20 – p. 213, l. 10. Further, the DOT will not permit an above-ground transmission line crossing scenic easements, requiring that on specific parts of the Q1-35 route the line be underground. Stevenson, Tr. Vol. 2, p. 215 – p.218; Fasick Direct, p. 8-10, ERF 160638. The WisDOT’s positions on utilization of rights-of-way by utilities is found in the Utility Policy of

Accommodation. WisDOT Utility Policy of Accommodation, §§ 8.0 and 8.1, Fasick Exhibit 19, ERF 161077.

ATC has attempted to bring in other substation options for consideration. ATC's Holtz submitted testimony and a map proposing five additional substation options. Holtz Direct, p. 3-4; Holt Ex. 1. However, these proposed substation locations were not addressed in the Environmental Impact Statement or in the Application. Briggs Road is the only substation contemplated for consideration by the Commission. Sirohi Vil. 4, p. 618, l. 3-23. If the Commission grants a CPCN for this project, the Commission cannot utilize any substation alternative because they have not been vetted in this proceeding and there is no record to support any decision regarding the 5 ATC substation proposals.

Dairyland has announced that it is shutting down three coal-burning units at the Alma plant. However, these retirements have not been addressed regarding the impacts on Dairyland's Q-1 transmission line as part of the project. Thompson, Vol. 2, p. 168-170. The Q-1 is not the only transmission line to LaCrosse and Western Wisconsin – there are at least four transmission lines from Minnesota crossing the Mississippi to Wisconsin, including lines near Alma, Winona, Trempealeau and LaCrosse. USFWS 5/4/09 Letter to Hillstrom, NoCapX/CETF Item 21, ERF 161182. There is no information in the record supporting need for a rebuild of the Q-1, only that it is something that Dairyland wants. Based on the record in this proceeding, there is no basis for Commission approval of the Q-1line.

## **V. CONCLUSION**

NoCapX 2020 and Citizens Energy Task Force submit this Initial Brief and request that the Commission make the determination that this project does not meet all of the requirements of Wis. Stat. §196.491 and that the application for the CapX 2020 Hampton-Rochester-LaCrosse

transmission project be denied. The project is not required for local load, which can be reliably served for the long term through reconductoring of transmission servicing the area. The project is not required for regional reliability because the claims of need for “regional reliability” are based on desire for increased transfer capability and economic benefits of economic dispatch and market transactions. The project would not provide regional reliability, and instead, as a radial 345kV connection to LaCrosse, would bring Minnesota congestion to the state border and LaCrosse, bringing with it system instability, voltage and dynamic issues, and would require addition of a LaCrosse to Madison line to complete the circuit and stabilize the system.

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